10. (Amended) The apparatus of claim 64 wherein the high pressure processing module comprises at least one substrate stripping chambers.

11. (Amended) The apparatus of claim 64 wherein the transfer area comprises a loadlock chamber.

13. (Amended) The apparatus of claim 66 wherein ~~the high pressure~~ processing module comprises:

(a) one or more substrate spinner chambers;

(b) one or more substrate curing chambers;

(c) one or more substrate stripping chambers; and

(d) one or more silylation deposition chambers.

14. (Amended) The apparatus of claim 67 further comprising one or more multi-slot cooling stations disposed within the second loadlock chamber.

15. (Amended) The apparatus of claim 66 further comprising a vacuum pump in fluid communication with the multi-slot pre-heating module.

16. (Amended) The apparatus of claim 66 wherein a vacuum pump is in fluid communication with each of the second plurality of chambers.

17. (Amended) The apparatus of claim 16 wherein each of the second plurality of chambers has two isolated processing regions.

18. (Amended) The apparatus of claim 17 wherein each isolated processing region includes a gas distribution assembly disposed therein and each gas distribution assembly shares process gases from one or more gas sources.

19. (Twice Amended) The apparatus of claim 17 further comprising a remote plasma system having a RF generator connected to each isolated processing region.

20. (Amended) The apparatus of claim 13 wherein each substrate stripping chamber is an oxidation chamber.

21. (Twice Amended) The apparatus of claim 20 wherein each oxidation chamber is connected to a remote plasma system having a RF generator or a microwave generator.

22. (Amended) The apparatus of claim 66 wherein the multi-slot pre-heating module is disposed within a second loadlock chamber.

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62. (Amended) The apparatus of claim 64 wherein an isolated processing region of each of said second plurality of chambers and an interior region of said high pressure deposition module are isolatable from an exterior environment in which said apparatus is situated.

63. (Amended) The apparatus of claim 66 wherein an isolated processing region of each of said second plurality of chambers and an interior region of said high pressure deposition module are isolatable from an exterior environment in which said apparatus is situated.

-- 64. (New) An apparatus for processing substrates, the apparatus comprising:

a high pressure processing module including a first plurality substrate processing chambers, a first transfer chamber that enables access to each of the first plurality of substrate processing chambers, and a first substrate handling member disposed in the first transfer chamber and configured to transfer substrates into and out of any of said first plurality of substrate processing chambers; wherein each of the first plurality of substrate processing chambers is dedicated to perform at least one step associated with the formation of a porous dielectric film from a liquid precursor including at least one liquid precursor deposition chamber;

a low pressure processing module including a second plurality substrate processing chambers, a second transfer chamber that enables access to each of the second plurality of substrate processing chambers, and a second substrate handling member disposed in the second transfer chamber and configured to transfer substrates into and out of any of said second plurality of substrate processing chambers; wherein the second plurality of substrate processing chambers includes at least one chemical vapor deposition chamber;

a loadlock chamber operatively coupled to the low pressure processing module to enable transfer of substrates between the apparatus and a clean room; and

a transfer area that enables substrates to be transferred between the high pressure processing module and the low pressure processing module.

65. (New) The apparatus of claim 64 wherein the at least on liquid precursor deposition chamber comprises a spin-on deposition chamber.

66. (New) An apparatus for processing substrates, the apparatus comprising:

a high pressure processing module including a first plurality substrate processing chambers, a first transfer chamber that enables access to each of the first plurality of substrate processing chambers, and a first substrate handling member disposed in the first transfer chamber and configured to transfer substrates into and out of any of said first plurality of substrate processing chambers;

a low pressure processing module including a second plurality substrate processing chambers, a second transfer chamber that enables access to each of the second plurality of substrate processing chambers, and a second substrate handling member disposed in the second transfer chamber and configured to transfer substrates into and out of any of said second plurality of substrate processing chambers;

a loadlock chamber operatively coupled to the high pressure processing module to enable transfer of substrates between the apparatus and a clean room; and

a multi-slot substrate pre-heating module coupled between the high pressure and low pressure processing modules, the multi-slot substrate pre-heating module being accessible by both the first and second substrate handling members.

67. (New) The apparatus of claim 66 wherein the multi-slot substrate pre-heating module is part of a second loadlock chamber.

68. (New) The apparatus of claim 66 wherein the multi-slot substrate pre-heating module comprises:

a housing including an opening;

a first compartment capable of supporting a first plurality of substrates, the first compartment being operatively coupled to a first moveable shaft; and

a substrate transfer region where substrates can be transferred into or out of the first compartment of the pre-heating module through the opening in the housing;

wherein the first compartment is moveable within the housing to expose an interior section of the compartment to the opening.

69. (New) The apparatus of claim 68 wherein the first compartment is moveable between a substrate loading/unloading position that exposes an interior section of the first compartment to the opening and an isolation position where the compartment is isolated from the atmosphere in the substrate transfer region.

70. (New) The apparatus of claim 69 wherein the multi-slot substrate pre-heating module further comprises first and second sealing flanges disposed peripherally within and extending inward from the housing and wherein the first compartment comprises a bottom platform, a top platform and a support that supports the platforms in a spaced relationship and wherein when the first compartment is in the isolation position the top platform engages the first sealing flange and the bottom platform engages the second sealing flange.

71. (New) The apparatus of claim 69 wherein the multi-slot substrate pre-heating module further comprises a second compartment capable of supporting a second plurality of substrates, the second compartment being operatively coupled to a second moveable shaft so that it is moveable within the housing to expose an interior section of the compartment to the opening.

72. (New) The apparatus of claim 71 wherein the second compartment is moveable between a substrate loading/unloading position that exposes an interior section of the second compartment to the opening and an isolation position where the second compartment is isolated from the atmosphere in the substrate transfer region.

73. (New) The apparatus of claim 72 wherein the multi-slot substrate pre-heating module further comprises first, second, third and fourth sealing flanges disposed peripherally within and extending inward from the housing;

wherein the first compartment comprises a first bottom platform, a first top platform and a first support that supports the platforms in a spaced relationship and wherein when the first compartment is in the isolation position the first top platform engages the first sealing flange and the first bottom platform engages the second sealing flange; and

wherein the second compartment comprises a second bottom platform, a second top platform and a second support that supports the platforms in a spaced relationship and wherein when the second compartment is in the isolation position the second top platform engages the third sealing flange and the second bottom platform engages the fourth sealing flange.

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74. (New) The apparatus of claim 71 wherein, when each of the first and second compartments are positioned in the isolation position, the compartments are spaced apart from each other in a vertical relationship and the transfer region is located between the compartments. --

REMARKS

Claims 2-8, 10-11, 13-22 and 62-63 have been amended; claims 1, 9 and 12 have been canceled and claims 64-74 have been added. Thus, claims 2-8, 10-11, 13-22 and 62-74 are pending.

Claims 1, 3 and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Edwards et al. (USP 5,259,881).

Claims 1-4 and 11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Turner et al. (USP 5,512,320).

Claims 5 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. and further in view of Kim (USP 6,214,120).

Claims 7 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. and further in view of Cecchi et al. (USP 5,587,038).

Claims 9, 12, 14-16, 22 and 62-63 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. and further in view of Begin et al. (USP 5,310,410).

Claims 10, 13 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. and Begin et al. and further in view of Azuma et al. (USP 5,612,082).

Claims 17 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. and Begin et al. and further in view of Kim.

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. and Begin et al. and further in view of Cecchi et al. (USP 5,587,038).

Claim 21 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al., Begin et al. and Azuma et al. and further in view of Cecchi et al.